APPENDIX 1

Preparation

APPENDIX 1

This appendix corresponds with Step 1: Preparation. It provides completed examples for:

- a Job Requirements and Physical Demands Survey (JR/PD Survey);
- a JR/PD Survey Summary Report; and
- an AF Form 190.



JRPD SURVEY

A completed survey is provided so that you can see the type of information on which the JRPD Survey Summary Report was compiled. One note of caution: the installation EWG does not make conclusions based on responses on individual surveys. This sample is provided only so that you understand the overall process.

JOB REQUIREMENTS AND PHYSICAL DEMANDS SURVEY

Job Requirements and Physical Demands Survey	Date (YYMMDD) 960912	Workplace Identifier:	0052-	XXXX-057A
(use this space for mechanical imprint)		Base Dover AF	В	Organization
		Workplace APS	Special	Handling
		Bldg. No/Location	1	Room/Area Bay 2
		AFSC/Job Series		
Gender: Fen	nale O Ma	ale •		
Work Group: Civilian	O Grade:	Military • I	Rank: <u>Airn</u>	<u>nan</u>
Age Category: 20 a	and under • 21-30 •	31-40 O	over 40	O
Length of service at this base:	less than one year O	more than one y	ear •	
Length of time in current shop:	less than one year O	more than one y	ear •	
Have you completed this question	naire before? Ye	s O No		

Part I - Job Factors

This section enables you to describe what is involved in your job. Indicate how long you do this work on approximately a <u>daily</u> basis.

A. DESCRIPTION OF WORK

	SH	IOULDER / NECK	4ever	OZhrs.	Z.A. Mrs.	A. B. hts
	1.	I work with my hands at or above chest level. (Figure A.)	O	O	O	•
Chest level						
Figure A.	2.	To get to or to do my work, I must lay on my back or side and work with my arms up.	•	\circ	\circ	\circ
	3.	I must hold or carry materials (or large stacks of files) during	~	•	•	•
	4.	the course of my work	0	•	3	0
		a task.	•	O	•	O
Sport B	5.	I reach or hold my arms in front of or behind my body (e.g., using a keyboard, filing, handling parts, performing inspection tasks, pushing or pulling carts, etc.). (<i>Figures B.</i>)	O	O	•	•
Figure B.	6.	My neck is tipped forward or backward when I work. (<i>Figure C.</i>)				
		C.)	•	•	3	3
Figure C.	7.	I cradle a phone or other device between my neck and shoulder. (Figure D.)	•	•	O	0

Appendix 1 5

Figure D.

Part I - Job Factors (continued)

HAND/WRIST/ARM 8. My wrists are bent (up, down, to the thumb or little finger side) while I work. (Figure E.) 9. I apply pressure or hold an item/material/tool (e.g., screw Figure E. driver, spray gun, mouse, etc.) in my hand for longer than 10 seconds at a time. 10. My work requires me to use my hands in a way that is similar to wringing out clothes. (Figure F.) 0 11. I perform a series of repetitive tasks or movements during the normal course of my work (e.g., using a keyboard, tightening Figure F. fasteners, cutting meat, etc.)..... \bigcirc 12. The work surface (e.g., desk, bench, etc.) or tool(s) that I use presses into my palm(s), wrist(s), or against the sides of my fingers leaving red marks on or beneath the skin. 0 13. I use my hand/palm like a hammer to do certain aspects of my work. 14. My hands and fingers are cold when I work. 15. I work at a fast pace to keep up with a machine production quota or performance incentive. 0 0 0 16. The tool(s) that I use vibrates and/or jerks my hand(s) and arms(s). \mathbf{O} 17. My work requires that I repeatedly throw or toss items..... 18. My work requires me to twist my forearms, such as turning a screwdriver. 0 19. I wear gloves that are bulky, or reduce my ability to grip. \mathbf{O} 20. I squeeze or pinch work objects with a force similar to that which is required to open a lid on a new jar. \mathbf{O} 0 21. I grip work objects or tools as if I am gripping tightly onto a pencil. O 0 0

Part I - Job Factors (continued)

В	ACK/TORSO	Hever	O.Z.hrs.	ZA His.	4.8 hrs
2	2. When I lift, move components, or do other aspects of my work, my hands are lower than my knees. (<i>Figure G.</i>)	•	•	O	•
Figure G.	3. I lean forward continually when I work (e.g., when sitting, when standing, when pushing carts, etc.).	0	Q	•	\mathbf{O}
2	4. The personal protective equipment or clothing that I wear limits or restricts my movement. 5. I repeatedly bend my back (e.g., forward, backward, to the side,	•	0	•	0
2	or twist) in the course of my work	•	0	O	•
	7. I can feel vibration through the surface that I stand on or				
Figure H.	through my seat.	•	•	•	•
2	8. I lift and/or carry items with one hand. (Figure I.)	•	•	O	O
1 : 17 : 21 1 1	9. I lift or handle bulky items	0	•	0	0
Figure I.	o. The materials that weigh more than 25 pounds.	•	•	•	•

0

0

0

Part I - Job Factors (continued)

LEGS / FEET 31. My work requires that I kneel or squat. (Figure J.) 32. I must constantly move or apply pressure with one or both feet Figure J. (e.g., using foot pedals, driving, etc.). 33. When I'm sitting, I cannot rest both feet flat on the floor. (Figure K.) 0 0 O 34. I stand on hard surfaces. Figure K **HEAD / EYES** 0 0 O 36. It is difficult to hear a person on the phone or to concentrate because of other activity, voices, or noise in/near my work area. 0 37. I must look at the monitor screen constantly so that I do not miss important information (radar scope). 0 0 0 38. It is difficult to see what I am working with (monitor, paper,

parts, etc.).

Part I - Job Factors (continued)

B. ORGANIZATIONAL FACTORS

	^{Strongly} Disagre	Disagree	Neutral	Agree	$StronglyA_{SPCe}$
	1	2	3	4	5
39. I often feel unclear on what the scope and responsibilities of my job are.	··· O	•	•	O	O
40. I often feel that I have too heavy of a workload, one that I could not possibly finish during an ordinary workday.					
41. I often feel that I will not be able to satisfy the	()	•	0	3	0
conflicting demands of various people around me	··· •	O	•	O	•
42. I often find myself unable to get information needed to carry out my job	··· •	•	•	O	•
43. I often do not know what my supervisor thinks of			_		_
me, how he/she evaluates my performance	··· O	•	•	0	O
44. I often think that the amount of work I have to do interferes with how well it's done.	··· •	•	O	•	O

C. PHYSICAL EFFORT

45. How would you describe the physical effort required of your job?

6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
No exertion	Extremely		Very		Light		Somewhat		Hard		Very		Extremely	Maximal
at all	light		light		_		hard				hard		hard	exertion
\mathbf{O}	\mathbf{O}	0	\mathbf{O}	O	\mathbf{O}	O	•	0	\mathbf{O}	0	\mathbf{O}	\mathbf{O}	\mathbf{O}	\mathbf{O}

Part II - Your Body's Response to Work Demands

D. DISCOMFORT FACTORS

This section enables you to identify how your body responds to the demands of *your job*. In each section, answer the first question. If the answer is "no" go to the next column.

Question	Shoulder/Neck	Hands/Wrists/Arms	Back/Torso	Legs/Feet	Head/Eyes
• In the past 12 months, have you experienced <u>any</u> discomfort, fatigue, numbness, or pain that <i>relates to your job</i> ?	46. Yes ● No O If "no", go to question 49	49. Yes ● No O If "no", go to question 52	52. Yes ● No O If "no", go to question 55	55. Yes ○ No • If "no", go to question 58	58. Yes ○ No • If "no", go to question 61
 How often do you experience discomfort, fatigue, numbness, or pain in this region of the body? 	47. Daily O Weekly O Monthly	50. Daily O Weekly O Monthly	53. Daily O Weekly O Monthly	56. Daily O Weekly O Monthly O	59. Daily O Weekly O Monthly O
• On average, how severe is the discomfort, fatigue, numbness, or pain in this region of the body?	48. Mild Moderate Severe	51. Mild Moderate Severe O	54. Mild Moderate Severe O	57. Mild O Moderate O Severe O	60. Mild O Moderate O Severe O

Part II - Your Body's Response to Work Demands (continued)

E. GENERAL QUESTIONS

61.	51. In the past 12 months, have you seen a health care provider for any pain or discomfort that you think relates to your job ?					
62.	Do you experience any work-related pain or discomfe the weekend?	ort that does not im	nprove when you are away fro	m wor	k overnight or over	Yes ●No O
63.	In the past 12 months, has any work-related pain or chobby, leisure, etc.)?	discomfort caused y	you difficulty in carrying out i	norma	activities (e.g., job,	Yes ●No O
64.	Has a health care provider ever told you that you hav work?	e any of the follow	ring conditions which you thin	ık mig	ht be related to your	Yes O No
	 Tendonitis/Tenosynovitis Epicondylitis (Tennis Elbow) Thoracic Outlet Syndrome Ganglion Bursitis Back Str 	•	Trigger Finger Carpal Tunnel Syndrome Knee or Ankle Strain	•	Overuse Syndrome	
65.	Do you have or have you ever had one or more of the	e following condition	ons?			Yes O No
	Wrist FractureThyroid DisorderRheumaHyperter	entoid Arthritis • ension •	Diabetes Kidney Disorders	•	Gout	

Part III - Work Content

The section below will enable you to describe the content of the work that you do in your current shop.

Fill in the box that describes how frequently you do the task listed, based on the following definitions:

• **Routine:** Performed on three or more days per week.

• Non-routine: Performed two days a week or less.

• Seasonal: Performed only during certain times of the year

• Never/NA: You do not perform this type of work.

<u>No.</u>	Type of Work		Work Freq (Check o		
		Routine	Non-Routine	Seasonal	Never/NA
66.	abrading	•	•	•	•
67.	baking	•	O	O	•
68.	bolting/screwing	O	O	O	•
69.	calling (telephone use)	•	O	\circ	•
70.	chipping	O	•	O	•
71.	cleaning by hand	•	0	0	•
72.	cleaning with high pressure equipment	0	0	0	•
73.	coating/immersing	O	O	O	•
74.	cooking	0	O	O	•
75.	copying	0	O	O	•
76.	crimping	0	O	O	•
77.	cutting/shearing	0	•	O	•
78.	drafting/CAD system use	0	O	\circ	•
79.	drilling	•	0	0	•
80.	driving (vehicles)	0	0	0	•
81.	excavating	0	•	O	•
82.	filing/general administrative	0	O	O	•
83.	flame cutting/arc cutting	0	O	O	•
84.	folding/fitting	0	O	O	•
85.	gluing/laminating	0	O	O	•
86.	grinding/buffing/polishing	0	•	•	•
87.	hammering	0	O	•	•
88.	lifting	•	•	•	•
89.	loading (pallets, trucks, carts, aircraft)	•	•	•	•
90.	lubricating	•	O	O	•

Part III - Work Content (Continued)

<u>No.</u>	Type of Work		Work Freq (Check o		
		<u>Routine</u>	Non-Routine	Seasonal	Never/NA
91.	machining	<u> </u>	<u> </u>	<u> </u>	•
92.	masoning	O	O	O	•
93.	melting	O	O	O	•
94.	molding	O	•	•	•
95.	monitoring (visual displays)	O	O	O	•
96.	mousing (for computer work)	•	O	O	•
97.	nailing	O	O	O	•
98.	opening/closing heavy doors	O	O	O	•
99.	packing/packaging	•	O	O	•
100.	painting/spray painting	O	O	O	•
101.	paving	•	•	•	•
102.	pumping (by hand)	•	•	O	•
103.	riveting/bucking	•	•	•	•
104.	sanding	•	O	•	•
105.	sawing	•	O	O	•
106.	scanning (using bar code readers)	•	O	O	•
107.	sewing	•	0	0	•
108.	soldering/brazing	•	0	0	•
109.	stapling	•	0	•	•
110.	stripping/depainting by hand	•	O	•	•
111.	stripping/depainting mechanically	0	0	0	•
112.	transporting loads on non-powered carts	O	•	O	•
113.	turning valves	O	O	O	•
114.	tying/twisting/wrapping	•	O	•	•
115.	typing/keying	0	0	0	•
116.	welding	O	•	•	•
117.	wheeling loads	•	O	O	•
118.	wiring	•	O	•	•
119.	wrenching/ratcheting	•	O	•	•
120.	writing/illustrating	O	O	O	•
	(Write in others)				
121.	(•	O	•	•
122.		O	O	•	O
l					

Part IV - Process Improvement Opportunities

Think about your job as a whole, including routine, non-routine or seasonal work.

Read the questions listed below and **describe the activities** that you or your co-workers think place the greatest demands on your body.

1. Which tasks are the most awkward or require you to work in the most uncomfortable positions?
Throwing tie-down nets over tall pallet loads.
2. Which tasks take the most effort?
Politics the natural of herbets. Compliant natural less been as at less
Pulling the nets out of baskets. Sometimes nets have bugs or other
things in them.
2 And those any tools are viscos of acrimonat that are retariously hard to made with 2 (If we list than below)
3. Are there any tools or pieces of equipment that are notoriously hard to work with? (If so, list them below)
No Comment.
4. If you could make any suggestions that would help you do your job more easily or faster or better, what would you suggest?
Have the tie down task be done on the leveler in the bay.

JRPD Survey Summary Report

JRPD Survey Summary Report

You will need to refer to this report in cases when you are conducting pro-active problem-solving in EPRA-designated shops. Table A describes parts of the report that may be particularly helpful.

Table A
JRPD Survey Summary Report - Items to Include in Pre-Shop Visit Review

Where	Selected Items/Information	What it Tells You
Page 1	Steps 1, 2, and 3. Items A.1-A.5 and D.1-D.5 are combined using the Ranking Matrix to generate the Priority Rank for the shop. The highest score for any body region (e.g., shoulder/neck, back/torso, etc.) is used as the Priority Rank on which the EWG makes its initial judgment about EPRA status.	Look at the highest body part ratings for the shop as a whole. If the shoulder/neck, for example, gets the highest ratings, you may wish to pay special attention to risk factors/demands on the shoulder as you perform assessments in the shop. Also, if your Level I Checklist results generate a high relative score for the same region, you might conclude that the job/task which is the focus of your assessment, may be contributing to reported shoulder/neck problems throughout the shop.
Page 2	Steps 4 and 5. The Organizational Rating indicates the perceived level of "job stress" in the shop. The Physical Effect Factors score indicates people's overall perception of physical demands (e.g., easy, hard, etc.)	A "high" Organizational Rating could indicate that high levels of job stress (e.g., poor relationship with supervisor, high work load, etc.) throughout the shop may be increasing people's experience with pain and discomfort. While you are not necessarily responsible for dealing with job stress, employees may comment about it during the course of your assessment. A Physical Effect Factors score of 15 or higher indicates that employee's think the over job demands in the shop are "high" (15 = hard on the survey). You should be sensitive to this as you are performing the assessment.

Table A (Cont'd)

JRPD Survey Summary Report - Items to Include in Pre-Shop Visit Review

Where	Selected Items/Information	What it Tells You
Page 2	Step 6. Health care provider score.	Health care provider score indicates number of employees who have received prior medical attention for a disorder.
	Activity Interruption percentage.	Activity Interruption percentage indicates the percentage of employees whose work or home activities have been affected by work-related pain or discomfort.
Page 2	Step 7. List of routine types of work.	This information is particularly important. This is the list of tasks that you will verify with the shop supervisor and from which you may select jobs to include in your proactive assessment.
Page 3	Step 8. Information on "potential concerns" and "improvement opportunities" within the shop.	Information in Step 8 may help you fine tune or prioritize the list of jobs you wish to include in your assessment. Pay close attention to the improvement opportunity remarks. Employees are providing you with some time-saving insight into what may help reduce ergonomics risk factors or pain/discomfort throughout the shop.

JOB REQUIREMENTS AND PHYSICAL DEMANDS SURVEY SUMMARY REPORT

Page 1

ERPA Status: EPRA	Priority Ranking: 7	Date: 260996
Date: 26 September 1996	Workplace Identifier: 0052-XXXX-057A	Base: Dover AFB
Organization:	Workplace: APS Special Handling	Bldg./Location:
Room/Area Bay 2	AFSC:	Civilian Job Series:
Shop Supervisor:	Duty Phone:	Office Symbol:

Step 1	Step 2	Step 3		
Write in the Risk Factor Rating for Part I, (questions 1-38, Scoring Sheet pg.1)	Write in the Discomfort Rating for Part II, (questions 46-60, Scoring Sheet pg.3)	Look at the "Ranking Matrix" below and enter the Priority Score in it's corresponding box.		
A.1 Medium	D.1 Medium	Shoulder/Neck = 5		
A.2 Medium	D.2 Low	Hands/Wrist/Arms = 2		
A.3 High	D.3 Medium	Back/Torso = 7		
A.4 High	D.4 Medium	Legs/Feet = 7		
A.5 Medium	D.5 Medium	Head/Eye = 5		

	Ranking Matrix for Priority Score	Discomfort High	Discomfort Medium	Discomfort Low
Ranking				
Matrix	Risk Factor High	9	7	4
	Risk Factor Medium	8	5	2
	Risk Factor Low	6	3	1

Select the HIGHEST score for any body part from Step 3 and enter \rightarrow

Survey		
Priority	7	
Rank:		

JOB REQUIREMENTS AND PHYSICAL DEMANDS SURVEY SUMMARY REPORT

Page 2 Step 4 **B.** Enter **Organizational Rating**: **Comments:** (Questions 39-44, Scoring Sheet pg. 2) None Low Step 5 C. Enter Physical Effect Factor Score: **Comments:** (Question 45, Scoring Sheet pg.2) None 13.47 Step 6 E. Enter the score for each of the General Questions: (Questions 61-65, Scoring Sheet pg. 4) E.1 Health Care Provider Score **Comments: E.2** Recovery Time Score Comments: Likely EPRA. If not, compare with discomfort ratings and consider an ergonomic evaluation. 52.63 % Comments: Almost half the employees report that work-**E.3** Activity Interruption Score related pain/discomfort has affected job performance/hobbies. <u>47.37</u> % E.4 Previous Diagnosis Score Comments: A pre-existing WMO may be inflating the survey priority rank. <u>31.58</u> % **Comments: E.5** Contributing Factors Score 26.32 % Step 7 **F.** List below each of the routine types of work which had shop percentage scores over 20%. (Items 66-122, scoring sheet page 5) Type of Work % Type of Work %

95

95

7*2* 26

Appendix 1

Loading

Lifting

Packing/Packaging

Tying/Twisting/Wrapping

JOB REQUIREMENTS AND PHYSICAL DEMANDS SURVEY SUMMARY REPORT

Page 3

	- 180
Step 8	
Review Part IV (Questions 1-3) to identify tasks, tools, equipment, etc., that employees listed as potential concerns. Comment as appropriate.	Comments: Handling nets/Tie-downs seem to require significant effort.
Review Part IV (Question 4) to identify potential improvement opportunities. Comment as appropriate.	Comments: Check to see if task can be performed using existing height adjustment device in the adjacent work area.
Step 9	
Injury/Illness Data: Review the injury/illness history from this shop. Attach information and comment as appropriate.	Comments: One employee has had surgery on both wrists (Carpal Tunnel Syndrome)

Step 10

Conclusions / Recommendations Summary

Shop Status

Recommendations for follow-up:

EPRA

Refer to Bioenvironmental Engineering for Level I Assessment. Suggest beginning by investigating the demands of loading and lifting tasks most frequently performed in the shop.

AF Form 190

AF Form 190

Attached is a completed AF Form 190. Table B describes parts of the report that may be particularly helpful.

Table B
AF Form 190 - Items to Include in Pre-Shop Visit Review

Selected Items/Information	What it Tells You
Items 6 and 10. Work Location and Occupation (Job Title/AFSC)	This information may help you pin point the possible job or workstation source of reported potential ergonomics problems.
Item 25. Describe Job Tasks that Resulted in Exposure to Hazardous Materials/Agents (Specify the material/agent).	The more specific the information, the more helpful it will be to prepare for your assessment. Ideally, the description will provide, not only information on the physical movements that may be the source of stress (e.g., radial, ulnar deviation), but information on a specific job or series of tasks in which those movements occur. It is the task-specific information which will help you decide where to begin the Level I Assessment.
Item 12. Diagnosis and Relevant Medical Data.	This description will help you focus your assessment. In other words, while you will be completing the Level I Ergonomics Assessment Checklist in order to assess exposure for all of the body regions, knowing in advance that the person is suffering from a lateral epicondylitis (elbow) may make you more sensitive to risk factors for that body region.
Step 31. Bioenvironmental Survey.	One of the primary purposes of the Level I Ergonomics Assessment and Problem-Solving Guide for Maintenance and Inspection Work Areas is to provide you with the tools to supplement your own ergonomics expertise and enable you to complete this section.

FPO

Copy of completed AF Form 190

CTHIS FORM IS				INJURY REP		95-6	187
(THIS FORM IS SUBJEL TO THE PRIVACY ACT OF 1974 - Use Blanket F. DD Form 2005)							
1. NAME (Last First, MI)		2. SSAN	ENTIF	CATION	3. GRADE 4. S	FX	5. AGE
1. NAME (Last, Flist, Int) 95-222		2 00	2	S		XX D F	35
5. TK LOCATION	7. DUTY PHONE			ND SYMBOL	9. INSTALLATION		133
B 2121/FLAP SHOP	63860	OC-ALC			TINKER AFE	3, OK 73145	
10. OCCUPATION (Job Title/AFSC)	- (-)	· · · · · · · · · · · · · · · · · · ·	· · ·	PERVISOR (Name an		-^	
A/C SHEETMENTAL MECHANIC	:/3806/WG-10						
11.		NCIDENT /	ILLNES	S DATA			
12. DATE AND TIME OF			13. ST/	ATUS AT TIME OF EX	(POSURE		
EXPOSURE: SINCE 1988 ILL	NESS: FEB 95	· · · · · · · · · · · · · · · · · · ·	⊠ o	N DUTY 🔲 OF	F DUTY LEAVE		HER
14. DURATION OF EXPOSURE 7 YEARS, 6 MONTHS, 25 DAYS	(29 mi		15. WITNESS (Name and Phone) NONE				
15. DESCRIPTION OF SYMPTOMS AT ONSE	T OF ILLNESS		1				
"This has happened in Bldg. 2121. I		ne use of alo	ot of po	wer tools such a	s drill motors, rivet gu	ins, etc. I do ale	otof
overhead and below knee work. My	right elbow has s	started hurti	ng me	and has progress	sively gotten worse."	,	
111.		MEDIC	CAL DA	TA			
17. DIAGNOSIS AND RELEVANT MEDICAL D	ATA (Indicate		18.		CLASSIFICATION 2		OSHA CODE
affected body parts)			Ī	OCCUPATIONAL SK	IN DISEASE		21
RIGHT LATERAL EPICONDYLIT	TIS			DUST DISEASE OF L	UNGS		22
					DITION DUE TO TOXIC AG		23
			\vdash				
	•			SYSTEMATIC EFFEC	CT OF TOXIC MATERIAL (A	oisoning)	24
			DISORDER DUE TO PHYSICAL AGENT (Other than toxic material)			25	
7.0	09- 72632		X DISORDER DUE TO REPEATED TRAUMA (Exclude hearing loss) 26			26	
	IN UNCONSCIOUSNE		OTHER OCCUPATIONAL DISEASE 29				
CATE/TIME OF INITIAL TREATMENT/DIAG			20. MEDICAL FACILITY 72D AMDS/SGPFO, OMS, BLDG. 3001, 33				
21. :REATMENT ADMINISTERED (Check One	e) 🔀 FIRST	AID 1			ecity In Remarks)	ny =	
22.		ON OF PATIEN			1622 ==	Č,	
YES NO			NO. DA	OF P			
X RETURN TO NORMAL DUTY			O		HOSPITAE 3	, (5)	
X REFER TO PRIVATE PHYSICIA	N		0	21 1 252 650	27.21	71.6°	
X EXCUSED FOR REST OF DUTY			7	RETURN 191	The state of the s		
23. NAME OF MEDICAL OFFICER	MAJ,	USAF, MC	C, FS, 0)44F3 MED	UR		
23. NAME OF MEDICAL OFFICER MAJ, USAF, MC, FS, 044F3 MEDICAL CORP AFSC: 044F3 72 MG, TINKER AFB OK 73145-3065							
						~~065	
IV.		ENVIRON		L DATA			
25. DESCRIBE JOB TASKS THAT RESULTED	IN EXPOSURE TO H	AZARDOUS M	MTERM	LS / AGENTS (Specif	y the material / agent)		
Mr s duties is primaril	ly a standing open	ations with	most p	arts positioned o	n work tables or fixtu	res of various fi	xed
heights in either the Back or flap shop. He corrects defects and sheet metal "skins" and frames by using a variety of handheld tools.							
Operations include: removing trivets with drills, using cleco pliers to install clecos to hold parts, countersinking bolt holes with a							
drill, shooting rivets while using various guns (e.g. rivet and cherry loc) and while holding various sizes of bucking bars,							
microshaving rivets, cutting sheet metal with manual or pneumatic shears, sanding and bufing various edges, wiring some fastners							
with safety wire pliers, using hammers, mallets and files, painting and cleaning parts, installing brakcets using am impact wrench							
	Victorial Case Classification HAT Acres a Porter force &T						
25. OCCUPATIONAL INCIDENT YES NO	27. TYPE	r Bru	NESS	28. WORKPLACE IDENTIFIER	0 1 8 8 D		0 6
29 REVIEWING OFFICER	72 2025CC					30. DATE (Y	
MD, CHIEF OM One-time treatment of minor scratche		splinters which	h do no	ot require professio	nal care.	1,010	acri
2. See AFR 127-12.	,,,						-

31. BIOENVIRONMENTAL ENGINEERING SURVEY (Summarize investigation of patient's exposure. Indicate results of appropriate measurements and assessment of protective measures. Consultant reports of or in lieu of this survey should be referenced and attached.)

Erogmonic stresses include, vibration transmitted to the arms and hands from shooting rivets with various guns and holding bucking bars (this is a high level of exposure, the high level implies that employees use vibrating tools more than four hours distributed over the entire day, or more than 30 minuts continuously or repetitively), forceful exertions are required due to: (1) holding heavy tools (i.e., cherry loc gun weighs 10 pounds), (2) using unbalanced tools (i.e., like some of the rivet and impact guns), (3) using manual shears, and (4) working with hard metal. Static work posture is required to use tools with one-finger triggers, localized contact stress to the palm of the hand due to holding bucking bar no designed handle/grip, repetitive wrist deviation are to insert and remove clecos using cleco pliers, repeated wrist extensions and flexion is present when using riveting gun. (this can lead to carpal tunnel syndrome), awkward postures (i.e., forward forearm rotations, elevated shoulders) due to work surfaces and fixtures with fixed heights and to improper match between work surfaces and grip of hand tool, repeated manipulations, deviations and twisting of the wrist while using tools (e.g., hammers, pliers, mallets (this can lead to ganglion cysts, tendonitis or epicondylitis), forced exertions are necessary to lift, pull and push heavy aircraft parts, wrists are flexed due to incorrect height of keyboard. These stresses have been related to ergonomic type conditions.

Consult with Bioenvironmental Engineering concluded that no further information could be provided that could assist in determining the occupational relationship of this condition. Bioenvironmental Engineering has identified these ergonomic stresses, made appropriate recommendations for corrective action and is tracking the recommendations for implementation.

CAND TO SERVICE TO LOS TO LAST TO LAST

AFMC FORM 12 RECEIVED: 27 JUL 95
AF FORM 190 SENT TO SGPFO: 31 Jul 95
AF FORM 190 RECEIVED FROM SGPFO: 36/06/18

FINAL DATA ENTRY: 95/08/08

returned from OMS for Signature of block 31, 2 Aug 95

Sent back to OMS 3 Aug 95

32. DATE

33. SURVEY PERFORMED BY

915 017 218 1

SSgt. USAF. NCOIC, Occupational Health. Public Health Flight